

AMENDMENT TO THE CLAIMS

1. **(Canceled)**

5 2. **(Currently Amended)** The ~~method of system~~ as set forth in claim [[1]]23, wherein
said set of unordered named fields of each of said events comprises multiple
standard source fields, wherein said set of unordered named fields further comprises
a target field corresponding to each of said standard source fields, and wherein said
~~attributes standard source fields~~ include an application instance, an application name,
10 a device name, a person, and a group.

3. **(Currently Amended)** The ~~method of system~~ as set forth in claim [[1]]23, wherein
said set of unordered named fields of each of said events includes multiple standard
source and target fields, wherein said source and target fields comprise an
15 EventType, SourceID, TargetID, a PersonID, a GroupID, a SequenceID, a
TimeToLive, and a TimeStamp.

4. **(Currently Amended)** The ~~method of system~~ as set forth in claim [[1]]23, wherein
each of said unordered named fields of each of said events comprises field contains a
20 field type, a field name, a post value, and a template value, wherein said post value is
assigned by each of said clients posting one or more of said posted events, wherein
said template value is usable by at least one of said clients to retrieve one or more of
said posted events, and wherein said template value of one of said unordered named

fields specifies a requirement on said post values of the same of said unordered named fields of said posted events.

5-10. (Canceled)

5

11. **(Currently Amended)** The ~~method of~~ system as set forth in claim [[1]]23, further comprising: wherein said retrieve function retrieves one of said posted events at most once, and wherein said retrieve function retrieves the same of said posted events based on a ordering said events first-in-first-out per source at most once ordering.

10

12. **(Currently Amended)** The ~~method of~~ system as set forth in claim [[1]]23, further comprising[[:]] a restart function for implementing said machines with modular restartability such that each of said applications automatically reconnect[[s]]ing one or more of said clients to said server to said Event Heap upon restart, allowing users of said ubiquitous computing environment to restart one or more of said applications at will without causing adverse affects.

15

13-22. (Canceled)

20

23. **(New)** A computer system for exchanging events in an interactive workspace, comprising:

(a) a plurality of heterogeneous software applications, called clients, wherein said clients are run by a plurality of heterogeneous machines of said interactive workspace;

(b) a server for coordinating exchanges of a plurality of events between said clients, wherein each of said events comprises a set of unordered named fields;

(c) a network for connecting said server and said plurality of clients;

(d) a post function for allowing each of said clients to assign one or more values to said unordered named fields of one of said events and to post the same of said events, wherein said posted event is posted on said server; and

(e) a retrieve function for allowing each of said clients to retrieve said posted event from said server, wherein said retrieval is accomplished by each of said clients specifying a template event and assigning one or more values to said unordered named fields of said template event, wherein said posted event is retrieved based on matching said one or more values of said unordered named fields of said posted event with said one or more values of said unordered named fields of said template event, and wherein said matching ignores a field order of some or all of said unordered named fields of said posted event and said template event.

24. (New) The system as set forth in claim 23, wherein said set of unordered named fields of said posted event comprises an expiration field for determining an expiration time of said posted event.

25. **(New)** The system as set forth in claim 23, further comprising a query function for allowing each of said clients to register a query template event onto said server and to assign one or more values to said unordered named fields of said query template event, wherein said posted event is returned to said client that registered said query template event based on matching said one or more values of said unordered named fields of said posted event and said one or more values of said unordered named fields of said query template event, and wherein said posted event is returned to said client that registered said query template event only if said posted event is posted after said query template event is registered.

26. **(New)** The system as set forth in claim 25, wherein said query function allows each of said clients to unregister said query template event, wherein said query template event is removed from said server when said query template event is unregistered.

27. **(New)** The system as set forth in claim 23, wherein one of said said clients posting one of said posted events does not directly communicate with said client retrieving the same of said posted events.

28. **(New)** The system as set forth in claim 1, wherein said interactive workspace of said plurality of heterogeneous machines is in a bounded physical environment.

29. **(New)** A method for exchanging events in an interactive workspace, comprising:

(a) having a plurality of heterogeneous software applications, called clients, wherein said clients are run by a plurality of heterogeneous machines of said interactive workspace;

5 (b) having a server for coordinating exchanges of a plurality of events between said clients, wherein each of said events comprises a set of unordered named fields;

(c) connecting said server and said plurality of clients through a network;

(d) providing a post function for allowing each of said clients to assign one or
10 more values to said unordered named fields of one of said events and to post the same of said events, wherein said posted event is posted on said server; and

(e) providing a retrieve function for allowing each of said clients to retrieve said posted event from said server, wherein said retrieval is accomplished by each of said clients specifying a template event and assigning one or more values to
15 said unordered named fields of said template event, wherein said posted event is retrieved based on matching said one or more values of said unordered named fields of said posted event with said one or more values of said unordered named fields of said template event, and wherein said matching ignores a field order of some or all of said unordered named fields of said
20 posted event and said template event.

30. **(New)** The method as set forth in claim 29, wherein said set of unordered named fields of said posted event comprises an expiration field for determining an expiration time of said posted event.

31. **(New)** The method as set forth in claim 29, further comprising providing a query function for allowing each of said clients to register a query template event onto said server and to assign one or more values to said unordered
5 named fields of said query template event, wherein said posted event is returned to said client that registered said query template event based on matching said one or more values of said unordered named fields of said posted event and said one or more values of said unordered named fields of said query template event, and wherein said posted event is returned to said
10 client that registered said query template event only if said posted event is posted after said query template event is registered.

32. **(New)** The method as set forth in claim 31, wherein said query function allows each of said clients to unregister said query template event,
15 wherein said query template event is removed from said server when said query template event is unregistered.

33. **(New)** The method as set forth in claim 29, wherein said set of unordered named fields of each of said events comprises multiple standard source fields,
20 wherein said set of unordered named fields further comprises a target field corresponding to each of said standard source fields, wherein said standard source fields include an application instance, an application name, a device name, a person, and a group.

34. **(New)** The method as set forth in claim 29, wherein said set of unordered named fields of each of said events comprises multiple standard source and target fields, wherein said standard source and target fields comprise an EventType, a PersonID, a GroupID, a sequenceID, a TimeToLive, and a TimeStamp.

35. **(New)** The method as set forth in claim 29, wherein each of said unordered named fields of each of said events comprises a field type, a field name, a post value, and a template value, wherein said post value is assigned by each of said clients posting one or more of said posted events, wherein said template value is usable by at least one of said clients to retrieve one or more of said posted events, and wherein said template value of one of said unordered named fields specifies a requirement on said post values of the same of said unordered named fields of said posted events.

36. **(New)** The method as set forth in claim 29, wherein said retrieve function retrieves one of said posted events at most once, and wherein said retrieve function retrieves the same of said posted events based on a first-in-first-out per source ordering.

37. **(New)** The method as set forth in claim 29, further comprising automatically reconnecting one of said clients to said server if the same of said client disconnects from said network.

38. **(New)** The method as set forth in claim 29, wherein one of said clients posting one of said posted events does not directly communicate with said client retrieving the same of said posted events.

5 39. **(New)** The method as set forth in claim 29, wherein said interactive workspace of said plurality of heterogeneous machines is in a bounded physical environment.

10